



General

This section provides the basic information about the park or trail and the organizations responsible for it.

Park/Trail ID # 15-096D	Funding Application 17-0067-F	Park/Trail Name Barn Bluff Park
Last Update June 19, 2017		
District 6	Project Name He Mni Can – Barn Bluff Master Plan Implementation Phase 1	

Project Description

He Mni Can - Barn Bluff is a powerful and iconic landscape and to the Dakota people, one of the most sacred places in the world. This Phase 1 project will significantly address all of the primary issues that were identified in the Master Plan including: 1. Respect for the bluff as a sacred place and sensitive habitat; 2. Eroding and difficult trail system; 3. Safety and navigation in the park; and, 4. Lack of parking and park amenities. We will address these issues with the proposed project by completing cultural and historic interpretation at the park entry so that visitor are immediately aware of the sensitive and sacred nature of the site; making significant trail sustainability improvements; addressing particular safety improvements; and construction of park entry and access improvements that include park amenities and additional parking. The proposed project will adhere to the Master Plan and include all of the Early Phase and a portion of the Mid Phase Budget projects. Specific project elements include the following: Construct new Park Entry, Access and Parking: The only entry into the park and the park's trail system suffers from a lack of organization and clarity. Access to the park along residential East 5th Street leads the visitor to a confusing and disorganized entry point. Across from the existing entry stairs, East 5th Street's gravel shoulder currently serves as Barn Bluff's parking area. Park visitors are on their own to park their vehicles and find their way to the steps that lead up to the trail system. The parking area is not large enough to accommodate the demand for parking on a weekend day. On a typical day, vehicle congestion and the disorganized parking creates a hazard for pedestrians and bicyclists. The plan for the new park entry organizes parking by providing a lot with at least 20 vehicle spaces, enough to accommodate typical use. On busy weekends, over flow parking would be available on E. 5th Street to the north and south. A partnership with Xcel Energy has been explored to facilitate occasional use of their property east of the paved surface lot for temporary overflow parking. A portion of East 5th Street is proposed to be resurfaced with traffic calming pavement and crosswalks to promote safe passage between parking and the park's new entry plaza adjacent to the existing kiln trail. In conjunction with the new parking area, we will design, and build a new park entrance plaza redefining the access to the park trails. The project will incorporate an interpretive walk along the base of the bluff between the existing current trail access point

(Kiwanis stairs) and the new entry plaza, with interpretive panels along the reservoir being a key feature. These interpretive panels will provide an opportunity to educate park users about the sensitive and sacred nature of the site. The plaza will be the central amenity, providing water, waste receptacles, bike parking, and interpretation with a lawn area available for gathering or picnicking. The full visitor building with indoor restrooms is a later phase project in the park but this phase will include a portable restroom enclosure. The entry plaza will lead to a new climbing causeway park trail that takes a more gradual and natural approach for entering the park or use a new ADA accessible trail that will lead to a future memorial space with a focus on the Bluff's cultural significance to the Dakota Indian Community. This ADA accessible trail will also provide access to the historic G. A. Carlson Kiln. The new access and entry will include creation of the woodland trail junction. This junction will unite both entry trails with the Midland and Quarry trails. The junction will include a clearing in the understory forming a circle, with stones marking the circular edge, doubling as seating. We will install new wayfinding that will direct visitors to choose from the Quarry trail, the Midland trail, or the South trail. Design of the parking area and entry plaza follows a goal of the master plan to ensure that the majority of park improvements occur off the bluff so that the experience on the bluff can be kept in a more natural setting.

Safe and Sustainable Trails: The trail system is the only way visitors are provided access throughout the park and directly influences how the park is experienced. Due to the nature of the steep landscape of the bluff park, recreation is limited to trail-oriented activities, including walking/hiking, trail running, and birding. This trail system also provides access to the rock climbing locations. Safety within the park is of vital concern. The bluff geology poses natural fall hazards due to steep inclines and extreme drop-offs. With Barn Bluff's rugged terrain, the trail system is the primary way visitors experience the park. A comprehensive inventory of all named trails was conducted as part of the master plan site analysis. The inventory identified existing conditions along all trails within the park and categorized the types and severity of issues proposed improvements need to address. There are currently six official park trails that allow visitors passage through the park: the North, South, Midland, Quarry, Kiln, and Prairie Trails. Most of these trails traverse steep inclines in several locations, and some trail routes impact known cultural resources. Others pose danger from falls and other hazards, including the North Trail which was closed to visitors in 2014 due to fatal accidents. The North Trail, because of the severity of the safety issues, is currently under construction in 2017 and is not part of this application. A detailed trail inventory has been completed. Analysis indicated 1,190 feet of severely eroded trail, and nearly 4,000 feet of moderately eroded trail. We will reconstruct and rehabilitate these segments. The location of the proposed trail work is graphically summarized in Figure 3.6, Trails Analysis Summary Graphic. Existing trail routes that are badly eroded or pose danger to cultural resources will be realigned in order to remedy issues. Those trails include: Prairie Trail Bypass, Prairie Trail descent to the east Overlook, and the Prairie Trail near the West Overlook. A Phase 2 Archaeological study has been completed with review and involvement with the Tribal Preservation Officer of the Prairie Island Indian Community, State Archaeologist, and the Minnesota Indian Affairs Council to ensure that trail repair and realignment are sensitive to cultural sites. Trail restoration combined with improvements to the base course, alignment, and drainage patterns of certain trails will address many of the needs while making the trail network more resilient. We will use best management practices to decommission non sanctioned paths that pose a particular safety hazard. A realigned trail connection between the West Overlook and the Prairie trail will provide a buffer and protect cultural resources in addition to decreasing erosion and improving ease of access. The actual west overlook needs minimal attention. The East overlook will be stabilized and restored to improve visitor safety and trail durability. Our plan for the East Overlook reconfigures the trail alignment using a combination of sloped grades focusing foot traffic and providing a more controlled descent to the final overlook. Three small, descending circular overlooks formed by rocks and vegetation will be demarked for users. At the final overlook, the trail will be limestone steps transitioning to limestone blocks with

limestone blocks surrounding the lowest vista forming a seat wall at the end of the trail. This will also become a safety feature keeping users away from the shear drop off edge of the bluff's east prominence. Additional planned trail related improvements include minor repair and rehabilitation of the East and Central Kiwanis Stairways and re-engineering and rebuilding a portion of the South Trail at the base of the bluff that currently serves for emergency vehicle access as a hardened trail to maintain the sustainability of the trail and its continued use for emergency access.

Project Area Maps

Figure 2.1 Barn Bluff Location

http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Figure 2.1 Barn Bluff Regional Location_27136f.pdf

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Funding

Legacy Pillars:

- Connect People and the Outdoors
- Acquire Land and Create Opportunities
- Take Care of What We Have
- Coordinate Among Providers

Project Outcomes

Connection to Pillars

Connect People to the Outdoors

Our Master Plan for He Mni Can - Barn Bluff Park was prepared to unite the many aspirations that people have for the park and communicates a common vision for its future. The Park is extremely accessible to residents and visitors since it is less than a 5 minute drive or 15 minute walk from downtown Red Wing. The Minnesota Climbing Association considers the site Minnesota's most popular sport climbing site primarily because of the easy access from population centers in the Twin Cities, Rochester and Southeastern Minnesota.

This park particularly aligns with the complementary themes guiding the Greater Minnesota Regional Parks and Trails Commission's strategies as listed in the 2016 System Plan and Work Plan:

- Create vibrant regional "destination" parks and trails – the City has placed enormous emphasis on developing an informed master plan that will build on the fact that He Mni Can – Barn Bluff is a very unique and distinctive park destination in the region.

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- Create novel user experience to initially encourage people to visit the park and provide experiences to keep them coming back time and again – the park offers hiking and rock climbing in combination with premiere scenic views and cultural interpretation that establishes He Mni Can – Barn Bluff as a truly novel experience for visitors.
 - Position well-located parks as “regional “cornerstone” amenities - He Mni Can – Barn Bluff is well positioned to draw visitors from the populations centers in the Twin Cities, Rochester and Southeastern Minnesota. This Phase 1 project will make safety, amenity and interpretive improvements that will help position the park as an extremely important regional cornerstone park.

The public involvement process involved with the master plan identified key improvements and new amenities needed to maintain, enhance and build on the park's popularity with the public. We heard the need to improve safety, realign motor vehicle and bicycle parking; and, improve the actual access entry to the park's trails.

The contemplated improvements within this application propose solutions that will provide vehicle parking with a uniform, coordinated, efficient parking scheme. Our plan to realign the park access will make accessing the park's trail system from the new entry plaza easy. With the proposed improvements, we will present a more welcoming, accessible environment for park visitors that will be memorable.

We also heard during the master planning process that we needed to make improvements to the basic trail infrastructure, directional signage and other amenities such as drinking water and toilet facilities. The proposed safe and sustainable trails project, wayfinding and other infrastructure improvements physically connect the park to current, new and future users.

Although most of the trail system does not provide ADA accessibility because of the steep nature of the hiking trails, the project will make a significant inclusiveness improvement by making an ADA accessible trail from the new off-street parking lot to the historic G. A. Carlson Kiln and to the new Dakota Memorial site. In addition, the parking and trail head improvements could also serve trail users on the future Mississippi Blufflands State Trail, (Red Wing Riverfront Trail) that will eventually connect Barn Bluff to Downtown and the Cannon Valley Trail to the west and Barn Bluff to Colvill Park and Lake City to the east.

Complementing the project will be our Park Naturalists. In 2016 Red Wing initiated two part-time Park Naturalist positions. The Park Naturalists split their time between three City Park/Recreational Areas. The Naturalist have focused their work on providing hikes and other activities that introduce children and adults to the natural and cultural features of the bluff. They are also available to answer questions and provide information throughout the summer to visitors to the park. The Park Naturalists program has been well received by the public. This program fits nicely into the Greater Minnesota Regional Parks and Trails Commission's 2016 System Plan and Work Plan strategies for getting young people outdoors more by “expanding programming opportunities – especially entry-level experiences.”

The City also has a continuing partnership with the U.S. Fish and Wildlife Service, Minnesota Department of Natural Resources, Audubon Minnesota, the Red Wing Friends of the Bluffs and other local volunteer groups for natural resources management including water resources and forestry/horticulture and the implementation of the Barn Bluff Parks' Habitat Management Plan. This work began with the completion of a Habitat Management Plan for Barn Bluff in 2013 and since then the City and its partners have focused on Prairie Restoration and Management. There is a great opportunity to introduce park visitors to the work that is being completed and education about the value of bluff prairie habitat.

Create Opportunities

This application does not involve acquisition of additional park land but it does address the part of this pillar statement related to creating opportunities that would not be available to park users if not for the Phase 1 project. The primary opportunity that the project will provide is that currently almost none of the bluff is

accessible to persons with physical challenges or disabilities because of the steep nature of the trail system on the bluff.

However, the Phase 1 project includes two significant features of the bluff that will be made ADA accessible. First, the project will provide access to the G. A. Carlson Kiln that is a major feature a short distance from the parking and entry to the park. The G. A. Carlson Kiln is independently listed on the National Register of Historic Places and is a unique historic feature. A branch trail off of this same ADA accessible trail will provide ADA access to a new Dakota Community Memorial site that will make it possible for elders and other Dakota community members with physical challenges to have access to the site that will provide a meaningful and contemplative feature.

Early in the master planning process, Art Owen, spiritual leader of the Prairie Island Indian Community, stated: “As a native, as a Dakota, I think for the whole area it would be great to have some mention to what the use of that hill was for, in the spiritual sense of it,” he said. “That’s what I would like to see: just a small area where people can pray and contemplate, again, back up there for what is used to be.” This Phase 1 project will set the foundation for the City to work closely with leaders of the Prairie Island Indian Community to address this need.

Take Care of what we have

Barn Bluff has been a natural public park area for over 100 years. Over the past few decades, minimal investment was necessary to maintain the park and facilities. After adopting the Master Plan in 2016, the City established a major goal in its Strategic Plan to make stewardship of this unique and regionally significant park a priority.

Most of the development and trail improvements over the years have been completed by volunteers with City assistance. Within the past 20 years, park visits have exponentially grown and the park’s popularity continues to rise. With the steep terrain involved with the trail system, serious erosion has occurred creating a lower quality hiking experience and safety issues. Some of the trail system was developed historically without any sensitivity to cultural and archaeological sites and so there is a need to make some minor alterations to the trail alignment in order to better avoid these sites. There is a need to accelerate renewal and rehabilitation of the park’s system of trails and update and enhance wayfinding in order to improve safety, establish a more sustainable trail network, and generally improve the quality of the trail experience.

Investment for the new parking area, park access, and other park amenities is necessary to maintain a high-quality experience for current and future park visitors. The proposed project elements will preserve the existing high-quality natural resources and restore those that have been degraded.

Coordinate among partners

He Mni Can - Barn Bluff is not only unique as an isolated land form but also by its state designation as a regional park and its status as a listed place on the National Register of Historic Places (NRHP). In addition, the G.A. Carlson Lime Kiln is individually listed as a NRHP.

The Master Plan for the park identified several elements of historic and cultural significance. We applied for and received funding from the Legacy Historical and Cultural Heritage Program to supplement the other improvements and work being contemplated at He Mni Can - Barn Bluff. The City has coordinated the use of the Legacy Historical and Cultural Heritage Program funding and city funding to address project planning: Historic Structure Report for the G.A. Carlson Lime Kiln, a Cultural Landscape Report for He Mni Can - Barn Bluff, and a Phase I Archaeological Survey. The City also leveraged the Historical and Cultural Heritage Program funding to implement the stabilization project for the G. A. Carlson Lime Kiln. Immediate work was initiated at the Kiln site in 2017 to prevent its imminent collapse.

The City will continue to seek Historical and Cultural Heritage Program funding to advance historical and cultural related improvements at He Mni Can - Barn Bluff. The targeted elements for this funding are: The design and construction of the Dakota Memorial, the Carlson Lime Kiln Interpretive Project, the Lime Kiln Overlook and Trail spur with interpretation, the Carlson Kiln Plaza with a Plaza Viewing Platform and interpretive displays; and, restoration of the historic West Kiwanis's stair case.

The City has also coordinated the use of the Outdoor Heritage funded Conservation Partners Legacy Program (CPL) at the park. With our partners, the USFWS, Audubon Minnesota, the DNR and the private non-profit Friends of the Bluffs, CPL funding matched with City and partner funding is being used to implement the Habitat Management Plan for Barn Bluff Park.

The City has several local partners that look forward to providing long term programming once the Phase 1 improvements are completed. The Goodhue County Historical Society conducts historic tours of the site. The Red Wing Environmental Learning Center offers educational opportunities to area youth in the areas of rock climbing and nature studies. The Red Wing YMCA offers programs to youth to explore the bluff; and periodically, the Anderson Center for the Arts sponsors a "Walk with Thoreau" and an opportunity to learn about Henry David Thoreau's visit to the bluff in the 1850's. All of these programming activities and events will be benefited by trail safety and other amenity improvements.

Another project partner is the Conservation Corps Minnesota & Iowa (CCMI). The City has enlisted the CCMI workforce to implement immediate and the proposed renovations, repairs and safety enhancements to the park's trail system. The trail system is only accessible by foot and so there is a need for a large amount of physical labor that the CCMI crew is able to cost effectively provide.

In 2017 the CCMI workforce will restore the North Trail of the park. The City completely closed this scenic loop due to the fall hazard presented to inexperienced hikers and other safety concerns. The opening of the North Trail loop is a listed high priority in the Master Plan and is a City Council priority within the City Council's Strategic Plan. The City is funding the North Trail project with \$41,987 within the City's 2017 Capital Program budget.

The CCMI workforce is also proposed to be used for the safe and sustainable trails project within this application. The estimated costs savings realized by using the CCMI workforce verses a publicly bid contract for labor and material for the proposed safe trail work is estimated to be over \$400,000. Please see confirmation letter from the CCMI which is an attached document.

Finally, the City has a history of coordinating the funding for large, legacy type capital improvement projects with the City's area philanthropic partners. For this project, the City has received a funding commitment from the Evelyn Sweasy Charitable Trust Fund in the amount of \$268,301 to be used as matching funds for the proposed project. The City's funding commitment combined with this significant funding partner and a Legacy grant, puts the City will be in a position to complete a truly significant improvement that will have a long lasting and sustainable regional impact.

The proposed Phase 1 project offers a singular opportunity to leverage funding and volunteer partnership opportunities to make an extremely significant and long-term park and recreational investment in the region.

Connection to Regional Values

The park master plan establishes the vision, guiding principles, recommendations, and detailed project implementation steps that will make this unique park an extraordinary regional outdoor resource. This Phase 1 project is large enough to positively impact all of the goals established in the planning process and compete the Early Phase and many of the Mid Phase projects listed in the implementation budget of the master plan. The incredible views that visitors are provided when they hike the bluff make the existing park an outstanding destination; this Phase 1 project will make He Mni Can – Barn Bluff a premier public recreational park facility in the Upper Mississippi River Valley.

Public and stakeholder input influenced development of the vision for the Master Plan: “He Mni Can (Barn Bluff) will stand as an honored landscape sacred to the Dakota, respected by all, where our wise stewardship will perpetuate its natural and cultural integrity.” The Master Plan for the park is guided by four principles which were the main themes we heard during the public involvement process as the plan was developed: Heal, Sustain, Educate, and Honor. From those principles, seven goals derived directly from the issues and opportunities identified in the planning analysis and input processes, established the framework organizing recommendations and improvements for the park.

This Phase 1 Project will touch each of the seven identified goals within the Master Plan.

Safe and Sustainable Trails will:

- Keep the park as natural as possible, using a “light touch” and sensitive design for any park improvements.
- Remove existing features that compromise the integrity of Barn Bluff’s natural and cultural resources.

Restore and protect the landscape wherever possible.

- Re-establish safety and durability of the trail system and reopen a loop route through the park.
- Increase general safety for visitors throughout the park with better navigation and hazard awareness.
- Enable visitors to easily become stewards of the bluff.

Park Entry, Access and Parking will:

- Keep the park as natural as possible, using a “light touch” and sensitive design for any park improvements.
- Increase general safety for visitors throughout the park with better navigation and hazard awareness.
- Improve visibility and convenience by establishing a prominent park entry where amenities, facilities, and park information can all be located.
- Enhance opportunities for education and programming at the park.
- Enable visitors to easily become stewards of the bluff.

The proposed improvement elements listed within the project application, and the current improvements being undertaken outside the scope of this project application submission will complete a majority of the early and mid-phases of the Master Plans listed improvements for the park.

Project Readiness

Project Lead

The City of Red Wing was incorporated as a Minnesota city in 1857 and is the County Seat of Goodhue County. The City’s eastern border is the Mississippi River. The City of Red Wing owns, operates, and maintains over 900 acres of municipal and regional parkland and 12 miles of paved recreational and pedestrian-bicycle trails.

Over the past five years the city staff have managed projects valued at over \$25 million of assorted local Capital Improvement infrastructure projects. The City has a diverse staff well versed in project development, programming, design, implementation and project management. The City’s organizational structure includes seven Departments and nine different Divisions within the Departments and employs 189 persons. The Departments include: Administration, Community Development, Engineering, Fire, Library, Police, and Public Works.

Over the past four years the City has methodically moved toward the submission of this funding application. He Mni Can – Barn Bluff is listed on the National Register of Historic Places and has a substantial number of historic, archaeological, and natural features that are important to understand in the development and implementation of improvements to the park.

The City has completed a number of preliminary studies and reports to help guide this process and streamline environmental assessment for the project, including:

Habitat Management Plan for Barn Bluff – 2013
Cultural Landscape Report (Archaeological Study) – 2015

The Community Development Department will lead the He Mni Can – Barn Bluff Legacy project. The Community Development Department has seven staff led by the Community Development Director. Mr. Steven Kohn will be the designated City Project Manager for the project. Steve serves as the City Planning Manager and has been with the City of Red Wing for over 20 years. Steve has experience in the areas of design review, procurement, NEPA compliance, the NHPA 106 process, the Secretary of the Interior's Design Standards, environmental policy, land management, surface water management, contract management, and construction administration. Steve is a 1993 graduate of Mankato State University (Urban and Regional Studies, BS).

Steve is currently managing the \$400,000 stabilization and renewal project of the historic G. A. Carlson Kiln at Barn Bluff Park, the North Trail renewal and restoration project and the City's CPL funded Habitat Improvement and Management Program. Steve has managed various municipal infrastructure construction projects that have utilized a variety of local, state, and federal funding sources during his tenure with the City. His administrative duties have included review of preliminary engineering reports and engineering design, construction document review, project management, and presentations to the public and elected bodies. Steve's lead will be supported by a City Project Management Team with a designated staff member from Engineering, Public Works and Finance providing ancillary staff support for the project. Steve will serve as the City primary point of contact for communication and be responsible for working directly with the professional services firm procured to work and consult with the City on design development, bidding specifications and construction documents.

In addition, Steve will manage and will be supported by Mr. Bruce Blair who is under contract with the City as an independent consultant and is a member of the Project Management Team. Bruce completed the detailed trail analysis and recommendation section of the Master Plan. Bruce is leading the design effort and project management with the CCMI workforce in the 2017 North Trail renovation, stabilization and safety enhancement project and will complete similar work for the City contemplated in this application's proposed Safe and Sustainable Trails project.

Bruce is a landscape architect by training (University of Minnesota, BLA, 1979) and was a park professional for 34 years, serving in maintenance, management, operations, and design capacities for local and state parks and federal wildlife refuges. From 1986 to 1999 he served as the first manager of the Cannon Valley Trail in Goodhue County, Minnesota. From 1999 to 2013 Bruce served as the Manager of Facility Development and Natural/Cultural Resources for Dakota County (Minnesota) Parks Department where he played a leadership role in advancing creative park development offering meaningful experiences rooted to place. His career included a hands-on focus on designing and developing a wide variety of trails and he was an early adopter of sustainable trail design and construction. He had a leadership role in the redevelopment of miles of trail to sustainable standards in Lebanon Hills Regional Park (Eagan, MN) and the development of new trails at Whitetail Woods Regional Park (rural Rosemount, MN). Trails in both these parks have been lauded for their sustainability and quality user experience. Since leaving Dakota County in 2013 Bruce has pursued a career as an independent park consultant for local governments and other agencies.

Implementation Timeline

The Proposed Project Implementation and Schedule for the Phase I project will follow two distinct separate tracks.

Due to the nature of the trail work, we are proposing that the specific trail work for the Safe and Sustainable Trails project component be design-build utilizing Mr. Bruce Blair as lead designer with oversight by the City Project Manager and the City Engineer. The CCMI workforce is the proposed builders/installers.

We have completed extensive preliminary planning, design and quantity estimations for trail renewal,

restoration and realignment for the safe and sustainable trails project. Schematic design would begin immediately in July of 2018 in conjunction with the development of the final CCMI work plan. Following environmental review approval with SHPO, TPO and State Archaeological Office review and approval of the work plan we expect the construction activity would begin in late summer or fall of 2018 until winter freeze up and resume in the spring. The project should be substantially completed in August of 2019. Please refer to the attached document titled TABLE 1 Project Timeline, Safe and Sustainable Trails – component 1 which lists the proposed timeline, event/major task and outcome.

The Park Entry, Access and Parking project and component 2 of the Safe and sustainable Trails project will require professional services assistance from a qualified engineering and/or landscape architectural firm. We expect to procure professional services immediately. Environmental clearances will have been completed, in tandem, with the Safe and Sustainable Trails project.

Schematic Design, Design Development, and Construction Documents will follow in the fall/winter of 2018-2019. Project letting and award in the spring of 2019 with construction initiated. We expect the construction period to last until June of 2020 with project close out by June 2020. The proposed timeline is a reasonable and attainable project schedule.

Please refer to the attached document titled TABLE 2 Project Timeline, Park Entry, Access & Parking Safe and Sustainable Trails – component 2 which lists the proposed timeline, event/major task and outcome.

Design Standards

In accordance with our Master Plan, any trail improvements contemplated must be durable and sustainable. Trail repair, reconstruction and development will follow sustainable design standards that focus on preventing erosion through thoughtful management of water and the use of durable materials and construction methods.

Two publications are the best known resources for local implementation for trail design which will serve as guides. Trail Planning, Design, and Development Guidelines, Minnesota Department of Natural Resources, Trails and Waterways, copyright 2006 state of Minnesota, primary author Jeff Schoenbauer; and, Trail Solutions: IMBa's Guide to Building Sweet Singletrack by the International Mountain Bicycling association, 2004. While specific to mountain bike trails, some of the trail building fundamentals and techniques found within the resource are transferable to the design of other trails.

Specific trail standards include:

- Alignment in regards to slope: Design the alignment with respect to existing topography such that trail grade does not exceed standards, otherwise water management issues compound rapidly and an unsatisfactory trail will develop.
- Full bench cuts for new trail: this is often ignored, resulting in trails with one half of the tread made from fill material cut from the other half of the trail. Unless the fill is rocky and contains the right mix of sizes, it will excessively compact and erode, resulting in a failed trail.
- Tread hardening: Use the right combination of native and if necessary, imported materials to ensure compaction and stability.
- Proper trail width: a trail can have a varied width to respond to obstacles and add interest. All of the named trails on Barn Bluff, with the exception of the north trail, have the appropriate width to accommodate traffic volumes and adjacent topography.

For the Safe and Sustainable Trails project, the City will use a design build process. The City has a preliminary agreement with the CCMI workforce to utilize their labor force to complete the work contemplated in the Safe and Sustainable Trails project. With the guidance of Mr. Bruce Blair, Mr. Steve Kohn and the Project Management Team we will develop schematic design for the renovation, renewal, stabilization, building and de-commissions of the park's trails.

Using this method of design, in combination with the contract work of the CCMI workforce for the Safe and Sustainable Trails project, reduces the probable project costs by over \$400,000 in professional services fees and labor and materials contractor costs. The City Engineer will "sign off" on this element of the proposed

project.

The City will follow the guidance within the Master Plan when developing the design for the Park Entry and Parking area. The design will maintain, conserve and compliment the scenery and the natural and historic elements. The design and new features will be compatible with natural processes, aesthetically pleasing, functional, energy- and water-efficient, cost-effective, universally designed as possible, for all segments of the population.

Upon notification of grant award, the City will prepare and release a RFQ for Statement of Qualifications (SOQ) from qualified firms to procure consulting assistance to work with the City on design development and bidding specification documents.

The SOQ will require the professional services firm selected be a firm in good standing and have past experienced with similar projects in nature and scope. The selected professional services firm will be required to have staff professionals licensed in Minnesota through the Minnesota Board of Architecture, Engineering, Land Surveying Landscape Architecture, Geoscience and Interior Design.

It is expected the project manager of the professional services firm contracted by the City will “sign off” on the plans and specification for the project. The project manager will be a licensed Professional Engineer or Landscape Architect.

Project Cost Breakdown

Development Element: To improve visibility and convenience by establishing a prominent park entrance where amenities, facilities, and park information can all be located. Please refer to the attached Figure 3.2 Park Entry Improvement Area Plan and figure 3.16 Park Entry Trails for conceptual drawings.

Park Entry and Access:

- Demolition/Removals/Electrical Line Relocation
- Site Grading
- New Entry Trail: Climbing Causeway
- New Entry Trail: ADA Accessible Route and Interpretive Plaza (Pump House to Kiwanis Stairs) Woodland Trail Junction with a Council Ring at East Kiwanis Stairs
- New ADA accessible trail to G.A. Carlson Lime Kiln and to Dakota Memorial Site
- Park Entry Kiosk, (Wood structure with visitor, climbing, and trail information)
- Biff Enclosure, (wood structure)
- Gathering Lawn, (turf installation and establishment with soil amendments)

General Interpretive Features

- Interpretive Panels on Reservoir Wall
- Wayfinding/ Signage, (limestone cairns with composite panels)

Other Amenities

- Site Furnishings
- Lighting / Electrical
- Rainwater Garden, (for the entry plaza areas)
- Landscaping

The estimated cost for the Park Entry and Access project is \$904,724. Of the total, \$685,397 is for construction; \$68,540 is for a construction contingency; and, \$150,787 is estimated for Design and Engineering. Please refer to the attached document titled TABLE 3 Project Costs, Barn Bluff Park Entry and Access for detail related to Key Elements, Associated Costs, and How the Element Achieves Regional Purpose.

The project cost estimates are based upon probable cost estimates prepared by Hoisington Koegler Group/Loam Consulting in 2016, inflation adjusted to 2018. A more detailed budget is attached as an Excel

Workbook titled Red Wing Barn Bluff GMRPTC 2018 Legacy Application Cost Estimates.

Development Element: To improve visibility, convenience and visitor safety by developing an organized efficient vehicle, motorcycle and bicycle parking by providing a parking area with 20 vehicle spaces, install traffic calming and pedestrian safety measures. Please refer to attached Figure 3.2 Park Entry Improvement Area Plan conceptual drawing.

Parking Area, Vehicles and Bicycles:

- Paved parking lot w/stormwater infrastructure, (bituminous parking lot with infiltration)
- Traffic calming elements on East 5th Street
- Soils Correction
- Lighting / Electrical
- Rainwater Garden
- Landscaping

The estimated cost for the Parking Area project is \$413,688. Of the total, \$313,400 is for construction; \$31,340 is for a construction contingency; and, \$68,948 is estimated for Design and Engineering. Please refer to the attached document titled TABLE 3 Project Costs, Barn Bluff Park Entry and Access for detail related to Key Elements, Associated Costs, and How the Element Achieves Regional Purpose.

The project costs are based upon probable cost estimates prepared by Hoisington Koegler Group/Loam Consulting in 2016 inflation adjusted to 2018. A more detailed budget is attached as an Excel Workbook titled Red Wing Barn Bluff GMRPTC 2018 Legacy Application Cost Estimates.

Trail Development Element: Repair, renovate, renew and in some cases realign the existing trail system of the park to improve access, circulation, convenience, drainage, sustainability and safety for park visitors. For a visual representation of the Safe and Sustainable Trails project, please refer to attached Figures: 3.3 West Overlook Improvement Area Plan, 3.7 Trails, Circulation and Access Plan, 3.8 South Trail, 3.9 Midland Trail, 3.10 Quarry Trail, 3.11 Prairie Trail, 3.12 Prairie Trail Bypass.

The Safe and Sustainable Trails project will consist of two separate and identifiable components.

Safe and Sustainable Trails:

Component 1

- South Trail Rehabilitation
- Midland Trail Rehabilitation
- Rogue Trail Decommissioning
- Prairie Bypass Trail Realignment
- Prairie Trail Realignment and West Overlook Modifications
- Quarry Trail Rehabilitation

Component 2

- South Trail Emergency Access, Engineered and Hardened
- East Overlook Reconstruction
- Citizen's Memorial Stairway (East and Central) Minimal Rehabilitation

The estimated cost for the two components of the Safe and Sustainable Trails project is \$436,781.

For trail Component number 1, \$188,909 is for trail construction, repair, and realignment and decommissioning and is the estimate, including material costs, plus the CCMI workforce labor charges; \$18,891 is for a construction contingency; and, \$24,936 is the estimated cost for the Design-Build process

and management of the CCMI workforce. Please refer to the attached document titled TABLE 5 Project Costs, Safe and Sustainable Trails – Component 1, for detail related to Key Elements, Associated Costs, and How the Element Achieves Regional Purpose.

The project costs are based upon probable cost estimates prepared by Hoisington Kogler Group/Loam Consulting and by Bruce Blair, Park Consultant in 2016 and inflation adjusted to 2018. A more detailed budget is attached as an Excel Workbook titled Red Wing Barn Bluff GMRPTC 2018 Legacy Application Cost Estimates.

The other project component for Safe and Sustainable Trails is the East Overlook redesign and construction; and, the engineered, hardened emergency access portion of the South Trail; and, the renovation and repair of the east and central Kiwanis Stairs. These project elements will require professional design services and contractor bidding for contract labor and material. For a visual representation of the Safe and Sustainable Trails East Overlook project please refer to attached Figure: 3.4 East Overlook Improvement Area Plan.

The estimated cost for the East Overlook, South Trail Emergency Access and Kiwanis Stair repair is \$204,046. Of the total, \$154,580 is for construction; \$15,458 is for a construction contingency; and, \$34,008 is estimated for Design and Engineering. Please refer to the attached document titled TABLE 6 Project Costs, Safe and Sustainable Trails – Component 2, for detail related to Key Elements, Associated Costs, and How the Element Achieves Regional Purpose.

The project costs are based upon probable cost estimates prepared by Hoisington Kogler Group/Loam Consulting in 2016 inflation adjusted to 2018. A more detailed budget is attached as an Excel Workbook titled Red Wing Barn Bluff GMRPTC 2018 Legacy Application Cost Estimates.

In addition to the Excel Workbook budget, a proposed project cost breakdown budget table is attached. The table titled “Barn Bluff Project Eligible Cost” is attached as Table 7.

The table lists the eligible project elements, their costs, proposed local share, percent of local share and proposed grant funding amount request for the project elements. The table shows our grant request funds and where they will be applied and the grant match funds and where they will be applied.

Funding Request Breakdown

Please use valid currency formats (e.g. \$100,000/100,000/100000)

Grant Funding Request

\$1,222,771

Local Match #1

\$264,120

Funder #1

0

Local Match #2

\$268,302

Funder #2

0

Local Match #3

0

Funder #3

0

Local Match #4

0

Funder #4

0

Local Match #4

0

Funder #5

0

Non-Eligible Local Match

546342

Non-Eligible Item Description

G. A. Carlson Kiln Stabilization & Restoration: September 2016 – August 2017

North Trail Stabilization and Safety Improvements: January 2017 – October 2017

Phase II Archaeological Survey: March 2017 – July 2017

USFW, MN DNR, Audubon Minnesota, Friends of the Bluffs and City - Habitat Management Plan Program

Implementation Program: April 2017 – June 2020

Non eligible project components are being funded from the Legacy Cultural & Historical program and the Conservation Legacy Partners program, City funds, private funds and a USFWS Partners for Fish & Wildlife grant program.

Please refer to the attachment titled, 'City of Red Wing 2018 Legacy Parks & Trails Application Non-Eligible Project Costs' for more detailed information.

Total Funding

\$1,755,193

Percentage of local match

0.30

Completion Timeframe

24 months

Funder #1

City of Red Wing

Funder #1 Resolutions

Resolution 7106

http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Resolution 7106 - Approving Submission of Legacy Parks and Trails Grant Funding_e1d1d8.pdf

Funder #2

N/A

Funder #3

N/A

Funder #4

N/A

Funder #5

N/A

Attachments

Doc Name	Description	Url
Additional Attachment	Project Timeline	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/TABLE S 1 and 2 Project Timeline_2cd081.pdf
Additional Attachment	Project Cost - Entry and Access	http://dms.gmrptcommission.org/u

		ploads/funding/17-0067-F/TABLE 3 Project Cost Barn Bluff Park Entry and Access_c9fdcf.pdf
Additional Attachment	Project Cost - Parking Area	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/TABLE 4 Project Cost Barn Bluff Park Parking Area_6d8ae4.pdf
Additional Attachment	Project Cost - Trails - Component 1	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/TABLE 5 Project Cost Barn Bluff Safe and Sustain Trails-Component 1_b7433d.pdf
Additional Attachment	Project Cost - Trails - Component 2	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/TABLE 6 Project Cost Barn Bluff Safe and Sustain Trails-Component 2_b6a14c.pdf
Additional Attachment	Barn Bluff Project Eligible Costs	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/TABLE 7 Barn Bluff Project Eligible Cost_b424e8.pdf
Additional Attachment	Park Entry Improvements	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Figure 3.2 Park Entry Improvement Area Plan_a5be84.pdf
Additional Attachment	West Overlook	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Figure 3.3 West Overlook Improvement Area Plan_a605a9.pdf
Additional Attachment	East Overlook	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Figure 3.4 East Overlook Improvement Area Plan_534194.pdf
Additional Attachment	Trails Analysis Graphic	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Figure 3.6 Trails Analysis Summary Graphic_ce88d9.pdf
Additional Attachment	Trails Circulation and Access	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Figure 3.7 Trails - Circulation and Access Plan_cb405f.pdf
Additional Attachment	Park Entry Trails	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Figure 3.16 Park Entry Trails_c96685.pdf
Additional Attachment	Trails Conditions	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Figures - Trails_3.8_3.9_3.10_3.11_3.12_d2a854.pdf

Additional Attachment	Cost Estimates	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Cost Estimates Red Wing Barn Bluff GMRPTC 2018 Legacy Application cfbf28.xlsx
Project Area Map	Figure 2.1 Barn Bluff Location	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Figure 2.1 Barn Bluff Regional Location 27136f.pdf
Funder Resolution One	Resolution 7106	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/Resolution 7106 - Approving Submission of Legacy Parks and Trails Grant Funding e1d1d8.pdf
Additional Attachment	CCMI Commitment Letter	http://dms.gmrptcommission.org/uploads/funding/17-0067-F/170719 - CCMI 2018 Red Wing GMRPTC Legacy application committ letter 9dee11.pdf